

Our Reference. 11529PCT dp j.ct

2 February 2005

Commissioner of Patents
WODEN ACT 2606

Sir

Patent Cooperation Treaty Application No. PCT/AU03/01132
Escape Device
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We refer to the second Written Opinion of the Authorised Officer issued with respect of the abovementioned application and dated the 5th November 2004.

In response to the Authorised Officer's sustained objections we have now further amended the claims and the relevant part of the specification, to clearly distinguish the present invention from the prior art. No new matter has been added and support for the amendments can be found throughout the specification and drawings, especially at page 9, lines 22-29. We enclose herewith two copies of the amended claims together with a marked up copy.¹

We respectfully disagree with the Authorised Officer that the invention lacks both novelty and inventive step. With respect to the question of novelty, we submit that the exact series of integers, as disclosed in the amended claims, are not found in any of the prior art documents. None of the prior art, either separately or in combination, discloses the use of a pivotable brake pad holder that is configured to be acted upon by centrifugal forces. In addition, none of the prior art discloses a brake pad which includes an engagement surface that can progressively engage a drum as the speed of rotation increases. The configuration of the pivotable brake pad holder of the present invention means that the pressure applied by the brake pad on the brake drum and the total surface area of brake pad in contact with the drum can both be increased relative to the speed of descent.

In relation to whether the invention involves an inventive step, the question is not whether a diligent searcher might find pieces of prior art from which there might be selected the elements which make up the patent. Rather, the question is whether the invention would be obvious to a non-inventive worker in the field. We submit that the feature of a pivotable brake pad holder is inventive in light of the prior art.

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As disclosed in the specification of the present application at page 10, a portion of the brake pad is in contact with the brake drum at all times. This means that there is no requirement for the speed of descent of the device to reach a minimum velocity before the braking mechanism will operate. As further discussed at page 10, line 15, the brake drum initially bites onto the portion of the brake pad which is in constant contact with the drum. As the centrifugal forces increase the whole of the brake pad 84 is brought into engagement with the brake drum 28. The shape of the brake pad holder 80, the relative positions of the pivot pins 82 and the point of contact of the brake pad 84 and the brake drum 28 means that the brake pad can progressively engage the drum.

Although French Patent No. 7418334 discloses the use of brake pads that already have *"one certain pressure on drum 6 at the time of assembly"*, nevertheless, the patent does not disclose the concept of progressively engaging brake pads wherein the surface area of the brake pads can progressively engage the drum as the centrifugal forces increase. In fact, figure 2 of the French patent appears to disclose an apparatus wherein the entire braking surface of the brake pad engages the drum at all times. This would be consistent with the use of a simple *"spring blade 9"* used to adjust the braking response. Therefore, the only change in braking response of the device disclosed in the French patent would be as a result of the pressure applied by the brake pad on the drum.

Hence, the prior art documents disclose either brake pads that include an engagement surface which in the first position is completely disengaged and in the second position is engaged, as illustrated in US patent 4,623,038, or a braking system wherein the total surface area of the engagement surface of the brake pad is constantly engaged against the brake drum, as disclosed in French Patent No. 7418334.

In contrast, the configuration of the braking apparatus of the present invention means that both the amount of force applied by the brake pad onto the drum and the total surface area of the brake pad engaging the drum can be increased. One of the advantages with increasing the total surface area of the brake pad contacting the drum as the speed of descent increases is that the frictional forces will be distributed over a larger area thereby reducing both the amount of wear on the brake pads and their temperature. Furthermore, the use of a biasing spring 88, as illustrated in figure 18, means that as the edge 90 of the brake pad wears the brake pad holder can rotate, thereby maintaining the desired braking force when the apparatus is at rest.

As the Authorised Officer will now appreciate none of the prior art discloses an apparatus that includes a brake pad as disclosed in the present application wherein the brake pad is adapted to progressively engage the drum brake as the speed of descent increases. The progressive engagement being both in terms of the pressure applied by the brake pad and the total surface area in contact with the drum.

The courts have stressed that there need only be a "scintilla of inventiveness" for a particular step not to be obvious. In the present case we suggest that there is more than just a "scintilla" of inventiveness and that the configuration of the escape device clearly involves an inventive step when compared to the prior art.

We therefore submit that the application as amended is novel and inventive over the prior art and respectfully request that a clear report should be issued.

Yours sincerely
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¹ Amended Claims and Marked-up copy